### WELL DESTRUCTION OF EIGHT GROUNDWATER MONITORING WELLS

JAMUL-DULZURA UNION SCHOOL DISTRICT
14581 LYONS VALLEY ROAD
JAMUL, CALIFORNIA
DEH CASE NO. H03764-002

PROJECT NO. 267.1.21 APRIL 25, 2006 Project No. 267.1.21 April 25, 2006

Mr. Jim La Chusa Jamul-Dulzura Union School District 14581 Lyons Valley Road Jamul, California, 91935

SUBJECT: REPORT OF WELL DESTRUCTION OF EIGHT GROUNDWATER

MONITORING WELLS, JAMUL-DULZURA UNION SCHOOL DISTRICT, 14581 LYONS VALLEY ROAD, JAMUL,

CALIFORNIA, 91935, DEH CASE NO. H03764-002

References: Correspondence from Mr. Kent Huth, County of San

Diego, Department of Environmental Health (DEH),

dated January 5, 2006.

Dear Mr. LaChusa:

In accordance with your request, Hargrave Environmental Consulting, Inc., (HEC) is submitting the following report of the destruction of eight groundwater monitoring wells.

If you have any questions or comments, please do not hesitate to contact us.

Respectfully,

HARGRAVE ENVIRONMENTAL CONSULTING, INC.

Chuck Hargrave Gerald I. Shiller
President Professional Geologist

PG #4558

Distribution: (1) Addressee

(1) Mr. Kent Huth, County of San Diego, DEH

(1) Well Permit Desk, County of San Diego, DEH

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Project No. 267.1.21 April 25, 2006

#### INTRODUCTION

Hargrave Environmental Consulting, Inc. (HEC) was authorized by Jamul-Dulzura Union School District to destroy eight groundwater monitoring wells (MW-1, MW-2, MW-3, and MW-5 through MW-9) located at 145881 Lyons Valley Road, Jamul, California (see Figure No. 1, Site Location). The wells were located in the vicinity of the former underground storage tanks (USTs) unauthorized release. Site assessment work has been completed and the site has received closure from the County of San Diego, Department of Environmental Health (DEH)(see Appendix A, Correspondence from the County of San Diego, Department of Environmental Health, dated January 5, 2006).

Currently the site is part of an asphalt paved yard where school buses and other school district vehicles are parked, and miscellaneous equipment is stored.

HEC obtained the proper permit from the County of San Diego DEH on March 17, 2006, to destroy monitoring wells MW-1, MW-2, MW-3, and MW-5 through MW-9 (see Appendix B, County of San Diego, DEH, Monitoring Well Destruction Permit, LMON 103838). The scope of work included the destruction of the monitoring wells and disposal of associated debris.

This report details the field operations, the method of well destruction, the type and quantity of backfill materials used, and the disposal of debris.

### GEOLOGY/HYDROGEOLOGY

The site is underlain at depth by Mesozoic granitics of the southern California batholith. The materials observed during past drilling and excavation activities at the site consisted of topsoil and decomposed granitic soils.

The subject site is located within the Jamul Hydrologic Subarea of the Otay Hydrologic Unit. The California Regional Water Quality Control Board (CRWQCB) has assigned beneficial use designation for the groundwater in this subarea for municipal, agricultural, and industrial purposes.

### WELL DESTRUCTION

Well destruction was performed under the direction of an HEC geologist on April 3 and April 4, 2006. The eight groundwater monitoring wells (MW-1, MW-2, MW-3, and MW-5 through MW-9) were

Project No. 267.1.21 April 11, 2006 Page 2

destroyed in accordance with the Department of Water Resources, Water Well Standards for California, Bulletin 74-90, dated December 1991, and the DEH, Site Assessment and Mitigation (SA/M) Manual, 2004. The approximate locations of the wells are shown on Figure No. 2, Site Plan with destroyed well locations.

### Over-Drilling of Well

Drilling services were provided by Baja Exploration, Inc. A jackhammer was used to remove the well box and associated concrete. The well casing was then pulled out of the boring with the drill rig. Once the well casing was removed, the drill rig was used with an 8-inch diameter auger to over-drill the filter pack and annular seal materials to the total depth of each well (see Table I, Well Construction Details).

### Backfilling of Borings

Following the over-drilling of the filter pack and annular material, the auger was removed, and the boreholes were backfilled from total depth with bentonite grout (Groutwell 20% solids) to approximately 4 feet below ground surface (bgs). Then bentonite chips to were added to approximately 2.0 feet bgs and hydrated as specified in the Department of Water Resources, Water Well Standards for California, Bulletin 74-90. The remainder of the borehole was backfilled to the surface with concrete.

#### Quantity of Backfill Material Used

A total of 107 cubic feet of Groutwell, 20% solids, were used to backfill from total depth to 4.0 feet bgs. Approximately six cubic feet of bentonite chips were utilized to backfill the borings from 4.0 feet bgs to approximately 2.0 feet bgs. Concrete was used to complete the remaining 2.0 feet of backfilling to the current surface grade. See Table I, Well Construction Details, for individual well backfill materials and volumes.

### DISPOSAL OF CONSTRUCTION DEBRIS

Concrete from the surface seal, sand from the filter pack and other materials removed from the wells were stored in six 55-gallon drums pending disposal. Following receipt of the final signed disposal manifest it will be submitted under separate cover.

#### LIMITATIONS

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The contents of this report are based on the following:

- 1. The observations of our field personnel during the field activities;
- 2. Information obtained from the County of San Diego, DEH, and State regulatory agencies; and
- 3. Reference documents.

The services performed by Hargrave Environmental Consulting, Inc. (HEC), have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the southern California area. No other warranty, expressed or implied, is made.

### REFERENCES

- 1. County of San Diego, Department of Environmental Health (DEH), 2005, Site Assessment and Mitigation Manual.
- 2. State of California, Resources Agency, Department of Water Resources Water Well Standards for California, Bulletin 74-90, dated December 1991.

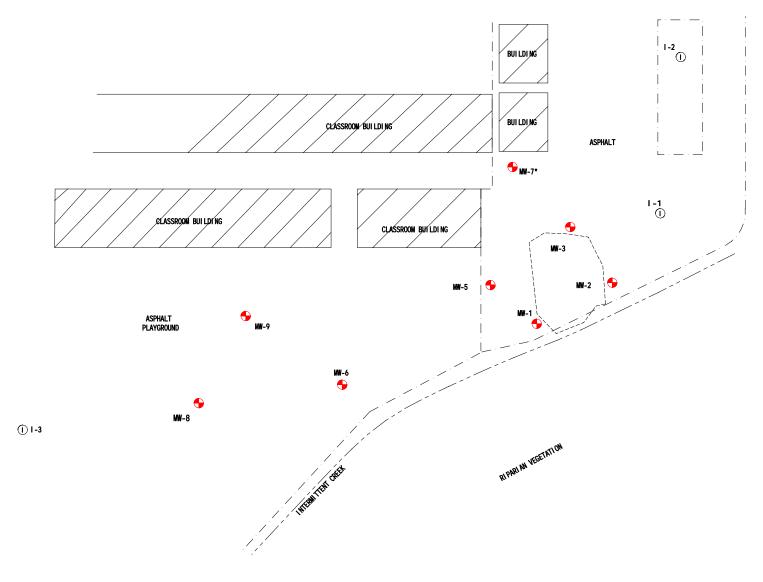
TABLE I
WELL CONSTRUCTION DETAILS

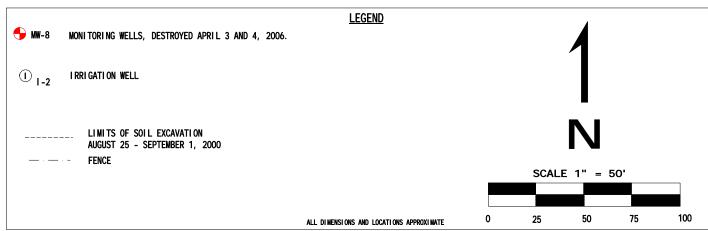
WELL DETAILS	MW-1#	MW-2#	MW-3#	MW - 4 *	MW-5	MW - 6	MW - 7	MW - 8	MW - 9
TOTAL DEPTH	44	44	47	35	35	40	40	43	45
CASING DIAMETER	2 in	2 in	2 in	2 in	2 in	2 in	2 in	2 in	2 in
WELL SCREEN	24-44	24-44	27-47	15-35	15-35	10-40	10-40	23-43	25-45
SOLID CASING	0-24	0-24	0-27	0-15	0-15	0-10	0-10	0-23	0-25
GRAVEL PACK (#3 SAND)	22-44	22-44	24-47	12-35	13-35	8-40	8-40	21-43	23-45
BENTONITE SEAL	3-22	3-22	3-24	2-12	2-13	2-8	2-8	3-21	3-23
SURFACE SEAL (CONCRETE)	0-3	0-3	0-3	0-2	0-2	0-2	0-2	0-3	0-3
DATE COMPLETED	11/26/02	11/26/02	11/26/02	04/04/00	04/04/00	08/08/00	08/08/00	07/28/03	11/23/04
VOLUME OF GROUT TO BACKFILL	13.9 ft <sup>3</sup>	13.9 ft <sup>3</sup>	14.9 ft <sup>3</sup>	N/A	10.8 ft <sup>3</sup>	12.5 ft <sup>3</sup>	12.5 ft <sup>3</sup>	13.6 ft <sup>3</sup>	14.3 ft <sup>3</sup>
VOLUME OF BENTONITE CHIPS	0.75 ft <sup>3</sup>	0.75 ft <sup>3</sup>	0.75 ft <sup>3</sup>	N/A	0.75 ft <sup>3</sup>				
VOLUME OF CONCRETE	0.75 ft <sup>3</sup>	0.75 ft <sup>3</sup>	0.75 ft <sup>3</sup>	N/A	0.75 ft <sup>3</sup>				
DATE DESTROYED	04/04/06	04/04/06	04/04/06	08/28/00	04/04/06	04/03/06	04/03/06	04/03/06	04/03/06

<sup>\*</sup> Well destroyed on 8/28/00

<sup>#</sup> Wells deepened on 11/26/02

### JAMUL-DULZURA SCHOOL DISTRICT





JAMUL-DULZURA SCHOOL DI STRI CT 14581 LYONS VALLEY ROAD JAMUL, CALI FORNI A PROJECT 267. 1. 21 FIGURE NO. 2: SITE PLAN WITH LOCATIONS OF DESTROYED WELLS

### APPENDIX A

## CORRESPONDENCE FROM MR. KENT HUGH COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH



## County of San Diego

GARY W. ERBECK DIRECTOR

### DEPARTMENT OF ENVIRONMENTAL HEALTH LAND AND WATER QUALITY DIVISION

P.O. BOX 129261, SAN DIEGO, CA 92112-9261 619-338-2222/FAX 619-338-2315/1-800-253-9933

www.sdcounty.ca.gov/deh/lwq

January 5, 2006

Mr. Jim La Chusa Jamul-Dulzura Union School District 14581 Lyons Valley Road Jamul, CA 91935

JAN 9 2005

Dear Mr. La Chusa:

CORRECTIVE ACTION PLAN CONCURRENCE UNAUTHORIZED RELEASE #H03764-002 JAMUL-DULZURA SCHOOL DISTRICT 14581 LYONS VALLEY ROAD, JAMUL, CA 91935

This letter has been prepared in accordance with the requirements set forth in Title 23 (State Underground Storage Tank Regulations), Division 3, Chapter 16, Article 11.

The Public Participation process for the above-referenced Corrective Action Plan (CAP) has been completed. The public comment period ended on December 30, 2005. The Site Assessment and Mitigation Program (SAM) received no comments. Based on the CAP document submitted, SAM concurs with and authorizes implementation of the CAP work plan. Please call the undersigned 48 hours prior to implementation of the CAP.

This concurrence with the CAP and work plan is valid for six months from the date of this letter. If the work plan is not implemented in this time frame, you must contact the undersigned to determine if revisions will be required to the CAP prior to taking any action.

Keep this letter for your records, as it may be required for corrective action cost reimbursement from the California Underground Storage Tank Cleanup Fund.

If you have any questions, please call me at (619) 338-2243.

Sincerely,

n KENT HUTH, Project Manager

Site Assessment and Mitigation Program

KH:kd

CC:

Gerald Shiller, Hargrave Environmental Consulting John Odermatt, San Diego Regional Water Quality Control Board

WP/H03764-002-106CAPCON

### **APPENDIX B**

# COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH MONITORING WELL DESTRUCTION PERMIT LMON103838



PERMIT #LMON103838 A.P.N. #596-152-21-00 EST #H03764-002

## COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH LAND AND WATER QUALITY DIVISION MONITORING WELL PROGRAM

MONITORING WELL DESTRUCTION PERMIT

SITE NAME: JAMUL-DULZURA SCHOOL DISTRICT

SITE ADDRESS: 14581 LYONS BALLEY RD., JAMUL, CA 91935

PERMIT TO: DESTROY 8 GROUNDWATER MONITORING WELLS

PERMIT APPROVAL DATE: MARCH 17, 2006

PERMIT EXPIRES ON: JULY 15, 2006

RESPONSIBLE PARTY: JAMUL-DULZURA SCHOOL DISTRICT

### PERMIT CONDITIONS:

- 1. All material within the original borehole, which includes the casing, filterpack and annular seal, must be removed. The borehole must be completely filled with an approved sealing material as specified in Department of Water Resources Bulletin 74-90.
- All water and soil resulting from the activities covered by this permit must be managed, stored and disposed of as specified in the SAM Manual in Section 5, II, E- 4. (http://www.sdcounty.ca.gov/deh/lwq/sam/manual\_guidelines.html). In addition, drill cuttings must be properly handled and disposed in compliance with the Stormwater Best Management Practices of the local jurisdiction.
- 3. Within 60 days of completing work, submit a well destruction report, including description of the method of destruction, type and volume of materials used (in cubic feet) to the Monitoring Well Permit Desk. This report must include all items required by the SAM Manual, Section 5, Pages 5-7.
- 4. This office must be given 48-hour notice of any drilling activity on this site and advanced notification of drilling cancellation. Please contact the Well Permit Desk at 619) 338-2339.

NOTE: This permit does not constitute approval of a work plan as defined in Section 2722 of Article 11 of C.C.R., Title 23. Work plans are required for all unauthorized release investigations in Care Bi-

for all unauthorized release investigations in San Diego County.

APPROVED BY: LA PROFETA DATE: 03/17/2006

NOTIFIED: 03/17/06 DEH:SAM-9075 (3/05)



## PERMIT APPLICATION GROUNDWATER AND VADOSE MONITORING WELLS AND EXPLORATORY OR TEST BORINGS

PERMIT LMON # 10 3838

SAM CASE Y/N # \_\_\_\_\_

DATE RECEIVED: \_\_\_\_\_

PED PAID: \_\_\_\_\_

CHECK #

OFFICE USE ONLY

2006 MAR The person, persons, or company responsible for the construction, maintenance, and destruction of the proposed borings and/or wells.) Mailing Address 14581 Lyons VAlley Road City Jamul Zip 91935 Contact Person \_\_\_\_\_ LaChusa Phone 619 669-776 Ext. \_\_\_\_ 3. SITE ASSESSMENT PROJECT NUMBER - IF APPLICABLE # H03764-002 C. CONSULTING FIRM Hargrave Environmental Mailing Address 8360 Clairmont Mesa Blvd#107 City San Diego State CA Registered Professional <u>Gerald I. Shiller</u> Registrat Reson Chuck Hargrave Phone 858-268-4248 Zip 92111-Registration # 4558 Ext. Fax 858-268-4528 D. DRILLING COMPANY Baja Exploration C57# 804318 Contact Name Dave Hogan Mailing Address 246 Vista Grande Glen City Escondido State CA Zip 92025-Phone 760-737-6896 Fax 760-737-6044 E. CONSTRUCTION INFORMATION TYPE OF WELLS/ MATERIALS TO BE USED PROPOSED CONSTRUCTION BORINGS TO BE CASING SEAL/BORING Estimated groundwater depth: 16 ft. CONSTRUCTED BACKFILL Estimated depth of boring 5-47 ft. Not Applicable \_\_\_\_\_ Neat Cement Cement & Bentonite Groundwater Concrete 0 tox3 1 Туре \_\_\_\_\_ ☐ Vadose surface seal Gauge \_\_\_\_ ☐ Sand-Cement ☐ Boring Diameter Bentonite - to \_\_\_ Annular seal Well Screen Size Other Other Bentonite \_1\_\_to\_\_\_\_ transition seal Filter Pack Borehole diameter NUMBER OF WELLS TO BE DESTROYED \_\_\_\_ to \_\_\_ Filter Pack **Drilling Method** Parforation \_\_\_\_ to \_\_\_ XX Auger VX ☐ Air Rotary ☐ Mud Rotary ☐ Other Percussion Attach a well construction diagram for wells with multiple completions I agree to comply with the requirements of the current Site Assessment and Mitigation Manual, and with all ordinances and laws of the County of San Diego and the State of California pertaining to well/boring construction and destruction. \_\_\_\_ DATE 3/1/0H DRILLER'S SIGNATURE Within 60 days of completion, I will furnish the Monitoring Well Permit Desk with a complete and accurate well/boring log. I will certify the design and construction or destruction of the well-besings in accordance with the permit application. PG/RCE SIGNATURE Devil DATE 3/1/26 GERALD L

Rec 10/05

ASSESSORIS DA DOST MINADED			
ASSESSOR'S PARCEL NUMBER596-152-21_ te NameJamul-Dulzura School District		· · · · · · · · · · · · · · · · · · ·	
			G: Oraca
te Address14581 Lyons Valley Road	City		_ Zip91935
	-		
ROPERTY OWNERLas Fores School District_		· . Pho	ne619-669-1400
failing Address14581 Lyons Valley Road Cit	yJamul	StateCA_	Zip91935
UMBER OF WELLS	TYPE OF WE	LLSGroundwater	monitoring well
ASSESSOR'S PARCEL NUMBER			e e est
ite Name			
ite Address	City		Zip
			2 · ·
ROPERTY OWNER			Phone
Sailing Address	City	State	Zip
TUMBER OF WELLS	TYPE OF WI	ELLS	
. ASSESSOR'S PARCEL NUMBER			
ite Name			
ite Address	City	<i>-</i>	Zip
'ROPERTY OWNER			Phone
Aailing Address	_ City	State	Zip
VUMBER OF WELLS	TYPE OF W	ELLS	
. ASSESSOR'S PARCEL NUMBER			
Site Name			
Site Address	Cit	y	Zip
PROPERTY OWNER			DL
PROPERTY OWNER	City	Ctata	rnone
		State	
NUMBER OF WELLS	TYPE OF W	ELLS	

SITE INFORMATION

### FEES (in effect beginning Jan. 10, 2003, through June 30, 2003):

. ACTIVITY	FEE SCHEDULE	AMOUNT
ermit for Well Installations Only  Groundwater Monitoring Wells	\$165.00 for the first well	- 61/200 6
adose, Vapor Extraction Wells)	\$90.00 for first well maintenance	x \$165.00 \$
adose, vapor Extraction wens)	inspection	x \$90.00 \$
ermit for Borings Only	·	•
CPT's, Hydropunch, Geoprobes, Temporary	\$160.00 for the first boring	x \$160.00 \$
Vell Points, etc.)	\$40.00 for each additional boring	x \$ 40.00 \$
ermit for		<u> </u>
Vell Destructions Only	\$160.00 for the first destruction	_1x \$166.50 \$166.50
	\$105.00 for each additional destruction	7x \$108.00 \$756.00
Permit for any Combination of Well	The first activity (of any type) will be	
nstallations, Borings & Destructions	\$160.00.	x \$160.00 \$
except UST backfill permit)	Additional activities will be as follows:	
	\$135.00 for each well	x \$135.00 S
	\$ 40.00 for each boring	x \$ 40.00 S
	\$105.00 for each well destruction	x \$105.00 \$
Permit for Underground Storage Tank		
Monitoring System in Backfill (i.e.	\$300.00	\$300.00
enhanced leak detection)	(Flat Fee)	
	TOTAL COST OF PERMIT	S 922.50

### APPLICATION SUBMITTAL, PLAN APPROVAL, PERMIT ISSUANCE, AND REQUIRED INSPECTIONS

Submit one (1) original and two (2) copies of this application package, including plan drawings with the required fee to the Monitoring Well Permit Desk, Department of Environmental Health, Site Assessment and Mitigation Program (SAM). 1255 Imperial Avenue, San Diego, CA 92101. Or mail to P. O. Box 129261, San Diego, CA 92112-9261. Checks should be made payable to the County of San Diego.

A permit will be issued by SAM upon review and approval of the application and plans. The required fees must be submitted with the application package. Information in addition to that presented in the application package may be needed in order to obtain final approval. No work is to begin on the proposed project until a permit has been issued. The required inspections cannot be scheduled until a permit is issued.

Once the permit has been issued, it is the responsibility of the permittee to notify SAM at least two (2) working days in advance to schedule each required inspection.

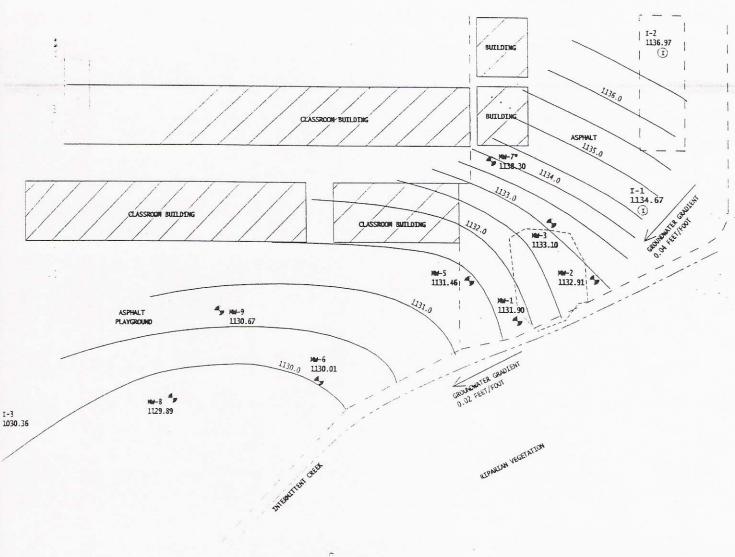
USE ONE APPLICATION PACKAGE FOR A SINGLE SITE PROJECT. A SINGLE PERMIT WILL BE ISSUED FOR A SINGLE SITE PROJECT, EVEN IF WELLS/BORINGS ARE COMPLETED ON MORE THAN ONE PROPERTY. PLEASE USE SEPARATE APPLICATIONS FOR MULTIPLE SITE PROJECTS.

### PERMIT APPLICATION FOR GROUND WATER AND VADOSE MONITORING WELLS EXPLORATORY OR TEST BORINGS

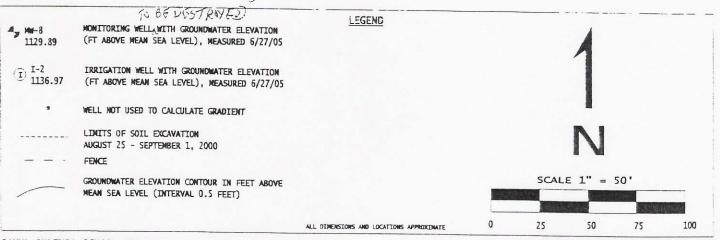
- For well destruction, complete only #1 below.
- Well design, logging and construction must be supervised by a Geologist, Engineering Geologist or Civil Engineer who is registered or certified by the State of California.
- Well driller must have an active C-57 License and current \$7,500 bond with the County.
- Provide a plot plan giving location of property lines, existing improvements such as structures, underground tanks, underground utilities, underground piping, and the proposed monitoring and/or observation wells.
- If applicable, provide a signed copy of the Property Owner Responsibility form for each property listed in Section "F."
- If applicable, provide a signed copy of the Property Owner Responsibility form for each property listed in Section "F." Provide encroachment/excavation permit and/or traffic control permit for work to be done in street or public right of way.

1.	If wells are to be destroyed, provide a description of method of destructionThe well box will be removed
	with a jackhammer. Then the 2-inch well casing will be pulled out of the ground. Next the well bore will be overdrilled with a 8-inch hollow stem auger to the total depth, removing all well materials. Borings will then be backfilled with bentonite from total depth to 1-foot below grade. Borings will be finished to grade with contract
2.	What is the proposed purpose of the well/boring?
3.	What procedures will be used to prevent the well/boring from providing an avenue to contamination during construction?
4.	What field procedures will be utilized to determine if contamination exists?
5.	What procedures will be used to determine whether samples will be sent for laboratory testing or archiving?

H	ow will samples be transported and preserved?
8.	What sampling methods will be used?
C	re you proposing a variation from the methods and/or procedures presented in the requirements for the construction of Vadose and Ground Water Monitoring Wells (Current SAM Manual Requirements). If yes pecify these variations.
-	
. V	What procedures will be used to ensure no contamination will be introduced by the drilling equipment?
V	What methods will be used to clean sampling equipment?
- . V	What cleaning method will be used to clean casing and screen prior to installation?
i e	



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JAMUL-DULZURA SCHOOL DISTRICT 14581 LYONS VALLEY ROAD JAMUL, CALIFORNIA PROJECT 267.1.21

FIGURE NO. 1: SITE PLAN WITH GROUNDWATER CONDITIONS

jamul-dulzura\drawings\267-1-21.skf